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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,737	07/15/2003	Ludmila Cherkasova	200310236-1	7028

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EXAMINER

DALENCOURT, YVES

ART UNIT PAPER NUMBER

2157

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,737

Applicant(s)

CHERKASOVA, LUDMILA

Examiner

Yves Dalencourt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/2003.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Dalencourt
Patent Examiner

DETAILED ACTION

This office action is responsive to communication filed on 07/15/2003.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 – 28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 - 47 of copending Application No. 10/345,587 in view of Chung et al (US 20040088380; hereinafter Chung).

3. Claims 1, 22, and 36 of copending Application No. 10/345,587 claim all the limitations, except for at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to

at least one other recipient node of said first group before the at least one recipient node fully receives its respective subfiles.

4. However, Chung teaches an analogous splitting and redundant storage on multiple servers, wherein at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to at least one other recipient node of said first group before the at least one recipient node fully receives its respective subfiles (paragraphs [0008 – 0009], and [0016]).

5. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the instant application by incorporating the idea of having at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to at least one other recipient node of said first group before the at least one recipient node fully receives its respective subfiles as evidenced by Zayas for the purpose of speeding up the delivery of data stored in files to users, thereby improving reliability, availability, local autonomy, load balancing, and increasing the rate at which data can be delivered.

Claims 2 - 16, 18 – 20, and 22 – 28 of the instant application are the same as claims 2 – 21, 23 – 35, and 37 – 47 copending Application No. 10/619,737.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siew Yong Sim (US 6,970,939; hereinafter Sim) in view of Zayas et al (US 6,477,583), and further in view of Chung (US 20040088380; hereinafter Chung).

8. Regarding claim 1, 12 – 17, 20 – 21, and 24 - 26, Sim teaches a method of distributing a file from a first node to a plurality of recipient nodes (fig. 4), the method comprising the steps of partitioning a file F into a plurality of subfiles (col. 8, line 40 through col. 9, line 35); performing distribution of said file F to a plurality of recipient nodes using a distribution technique that comprises attempting to distribute the plurality of subfiles from a first node to a first group of recipient nodes, wherein the first node attempts to communicate at least one subfile to each recipient node of said first group but not all of said plurality of subfiles to any recipient node of said first group (col. 14, lines 25 – 39; col. 16, lines 7 – 16; col. 20, line 34 through col. 21, line 24); detecting a failed node (col. 21, lines 21 - 37); and said distribution technique adapting to distribute said file F to each non-failed node of said plurality of recipient nodes (col. 21, lines 21 – 37).

9. Sim teaches substantially all the limitations, but fails to specifically teach that said plurality of recipient nodes of said first group attempting to exchange their respective subfiles received from said first node.

10. However, Zayas teaches an analogous infrastructure for supporting file replications, which teaches the idea of a plurality of recipient nodes of said first group

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attempting to exchange their respective subfiles received from said first node (col. 1, lines 30 – 39; col. 3, lines 31 - 39).

11. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Sim by incorporating an infrastructure for supporting file replications across a plurality of file servers as evidenced by Zayas for the purpose of automatically distributing data stored in files to users, thereby improving reliability, availability, local autonomy, load balancing, and data access performance.

12. Sim and Zayas teach substantially all the limitations, but fail to specifically teach that at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to at least one other recipient node of said first group before the at least one recipient node fully receives its respective subfiles.

13. However, Chung teaches an analogous splitting and redundant storage on multiple servers, wherein at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to at least one other recipient node of said first group before the at least one recipient node fully receives its respective subfiles (paragraphs [0008 – 0009], and [0016]).

14. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Sim by incorporating the idea of having at least one recipient node of said first group begins communicating a portion of its respective subfile that it is receiving from the first node to at least one other recipient

node of said first group before the at least one recipient node fully receives its respective subfiles as evidenced by Zayas for the purpose of speeding up the delivery of data stored in files to users, thereby increasing the rate at which data can be delivered.

15. Regarding claim 2, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches, wherein said distribution technique adapting responsive to said detecting a failed node (col. 21, lines 21 - 37).

16. Regarding claims 3, 22, and 23, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches, wherein said attempting to distribute the plurality of subfiles from a first node to a first group of recipient nodes comprises: attempting to distribute a different subfile from said first node to each of said recipient nodes of said first group (col. 9, lines 23 - 25).

17. Regarding claims 4 and 18, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches wherein said attempting to distribute the plurality of subfiles from a first node to a first group of recipient nodes comprises: attempting to distribute the plurality of subfiles from said first node to said plurality of recipient nodes of said first group concurrently (col. 16, lines 11 – 20; col. 22, lines 12 - 24).

18. Regarding claims 5 and 19, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches wherein said plurality of recipient nodes of said first group attempting to exchange their respective subfiles further comprises: each of said plurality of recipient nodes attempting to establishing concurrent communication connections to every other recipient node of said first group (col. 11, lines 36 - 47).

19. Regarding claim 6, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches wherein said detecting a failed node comprises said first node detecting a failed node in said first group such that said first node is unable to communicate a particular subfile to such failed node (col. 21, lines 21 - 37).

20. Regarding claim 7, Sim, Zayas, and Chung teach all the limitations in claim 6, and Sim further teaches wherein said attempting to distribute the plurality of subfiles from a first node to a first group of recipient nodes comprises said first node attempting to establish concurrent communication connections to the recipient nodes of said first group, and wherein said distribution technique adapting comprises responsive to said first node detecting a failed node in said first group such that said first node is unable to communicate a particular subfile to such failed node, said first node using its established concurrent communication connections with non-failed nodes of said first group to communicate the particular subfile to said non-failed nodes (col. 21, lines 21 - 37).

Regarding claim 8, Sim, Zayas, and Chung teach all the limitations in claim 6, and Sim further teaches wherein said distribution technique adapting comprises: responsive to said first node detecting a failed node in said first group after said first node has communicated a particular subfile to such failed node but before such failed node has communicated said particular subfile to every other recipient node of said first group, said first node establishing concurrent communication connections with non-failed nodes of said first group that have not received the particular subfile from said

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failed node, and said first node communicating the particular subfile to said non-failed nodes (col. 21, lines 1 - 37).

Regarding claims 9 - 10 and 27 - 28, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches wherein said detecting a failed node comprises: said recipient nodes of said first group exchanging heartbeat messages (col. 21, lines 20 - 37); at least one recipient node of said first group detecting a failed node from analysis of heartbeat messages received; and said at least one recipient node of said first group notifying said first node of said detected failed node (col. 37, lines 4 - 22).

Regarding claim 11, Sim, Zayas, and Chung teach all the limitations in claim 1, and Sim further teaches that said group of recipient nodes attempting to communicate said file F to a second group comprising a plurality of recipient nodes (col. 21, lines 21 - 37).

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (571) 272-3998. The examiner can normally be reached on M-TH 7:30AM - 6: 00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yves Dalencourt



June 11, 2006